

IN THE DRAWINGS:

Please amend the drawings according to the attached Replacement Drawing Sheets. Figs. 1 and 2, Sheet 1/6, have been amended to add the legend "Prior Art" to those figures. Figs. 6-11 have been amended to add reference numerals to those figures.

Attachment: Replacement Drawing Sheets 1/6, 3/6, 4/6, 5/6 & 6/6

REMARKS

The Office Action dated June 1, 2005 has been received and carefully noted. The above amendments to the specification, drawings and claims, and the following remarks, are submitted as a full and complete response thereto. Claims 1, 3 and 31 have been amended and claims 2, 4, 6, 11, 18 and 25 have been cancelled. No new matter has been added. Claims 1, 3, 5, 7-10, 12-17, 19-24 and 26-31 remain pending in the instant application and are submitted for consideration.

The Office Action objected to the drawings on several grounds. Figs. 1 and 2 were objected to because those figures are identified as prior art but not designated as "Prior Art." Applicants have amended Figs. 1 and 2 to add such a legend in the enclosed Replacement Drawing Sheets. Figs. 6-11 were also objected to as lacking reference numerals. Applicants have amended those figures to add the required reference numerals and make commensurate changes to the specification to support the addition of the reference numerals. Entry of the Replacement Drawing Sheets is respectfully requested.

Claims 1-31 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 1 was alleged to be indefinite since the axes of rotation were indicated as not forming a common axis. Claim 3 was rejected as being vague and indefinite and claims 4-9 were rejected because it was alleged that "several" means "more than two but fewer than many" and the limitations in claims 4-9 do not comport with claim 1. Claim 31 was also rejected because it was alleged that the limitation "linearization of the change in capacitance" lacks sufficient structural support. Applicants have made changes to the

claims that respond to the rejections. Reconsideration and withdrawal of above rejection are respectfully requested.

Claims 1-8, 10-15 and 30 were rejected under 35 U.S.C. §102(b) as being anticipated by *Negoro* (U.S. Patent No. 5,892,154). Claims 17-28 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Negoro*. Claims 9, 16 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Negoro* in view of *Cole* (U.S. Patent No. 4,736,629). Applicants respectfully submit that the presently pending claims recite subject matter which is neither disclosed nor suggested in the cited prior art.

Claim 1 recites a capacitive acceleration sensor having at least one pair of electrodes such, that the at least one pair of electrodes has a movable electrode, which is responsive to the acceleration, and at least one stationary plate portion, wherein the at least one pair of electrodes further has an axis of rotation. The axis of rotation is formed such that the movable electrode of the acceleration sensor is rigidly supported at the axis of rotation such, that the movable electrode is free to turn in a rotational motion about the axis of rotation, the position of the pairs of electrodes is selected symmetrically in relation to axes of symmetry, and the at least one pair of electrodes has more than one pair of electrodes used in the acceleration sensor, the acceleration sensor being a multi-axis acceleration sensor. Claims 3, 5, 7-10, 12-17, 19-24 and 26-31 depend from claim 1.

As discussed in the present specification, the present invention enables a change in capacitance of the electrode pairs to be measured and the acceleration is determined therefrom. It is respectfully submitted that the prior art of *Negoro* and *Cole*, when

viewed or when combined, fails to disclose or suggest the elements of any of the presently pending claims. Therefore, the prior art fails to provide the critical and unobvious advantages discussed above.

Negoro is directed to an acceleration detection device that is capable of detecting accelerations in two or more directions. A movable electrode 7 is mounted on a cantilevered section of a beam 4, such that the movable electrode rotates about a center axis. *Negoro* discloses multiple embodiments, including a sensor with redundant electrodes (Fig. 6), a sensor with a three-way symmetry (Fig. 8) and electrodes with variable shapes (Fig. 3A). With respect to the obviousness-type rejection, the Office Action alleges that having four or eight electrode pairs would have been obvious in view of *Negoro*.

However, in *Negoro*, the stationary electrode is moved relative to the movable electrode in order to determine the desired sensitivity. Thus, in *Negoro*, the sensitivity is based on the adjusted change of position in stationary electrode center area in relation to the movable electrode. Thus, *Negoro* fails to teach that the “axis of rotation is formed such that the movable electrode of the acceleration sensor is rigidly supported at the axis of rotation such, that the movable electrode is free to turn in a rotational motion about the axis of rotation [and that] the position of the pairs of electrodes is selected symmetrically in relation to axes of symmetry,” in the context of a multi-axis acceleration sensor. For at least this reason, Applicants respectfully assert that the rejection of claims 1-8, 10-15 and 30 is improper and should be withdrawn.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In the instant case, all of the elements of claim 1 are not expressly disclosed in *Negoro* and Applicants respectfully assert that the rejection over *Negoro* is improper.

Similarly, Applicants respectfully assert that claims 1, 3, 5, 7, 8, 10, 12-15 and 30 are also not rendered obvious by the disclosure of *Negoro*. Applicants respectfully assert that one of ordinary skill in the art would not have been motivated to modify the teachings of *Negoro* to reach the subject matter of the instant claims. While many embodiments are disclosed in *Negoro*, there is no motivation or teaching within *Negoro* that would motivate one to reach the subject matter of the instant claims. Similarly, for at least their dependence on claim 1, claims 3, 5, 7-10, 12-17, 19-24 and 26-31 should be allowed over *Negoro*.

In addition, the rejection of claims 9, 16 and 29 also cite *Cole*. In *Cole*, an accelerometer includes a substrate, a metallic movable plate, and a mounting system for mounting the movable plate such that it is positioned above the substrate and can rotate about a flexure axis that is above and is substantially parallel to the substrate. The flexure axis divides the sensing element into first and second sections. The total moments of the first and second sections about the flexure axis are different, such that acceleration normal to the substrate tends to rotate the sensing element about the flexure axis. In an embodiment adapted for high g applications, a pedestal divides a plate member into first

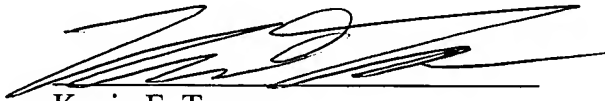
and second cantilevered beams that flex in the same direction in response to a given acceleration. *Cole* is cited for this teaching of a pair of beams centrally supported by a pedestal. However, *Cole* fails to cure the deficiencies of *Negoro* discussed above and Applicants respectfully assert that claims 9, 16 and 29 should also be allowed for at least their dependence on claim 1.

In view of the above, Applicants respectfully submit that claims 1, 3, 5, 7-10, 12-17, 19-24 and 26-31 each recite subject matter which is neither disclosed nor suggested in a combination of *Negoro* and *Cole*. The withdrawal of all rejections is requested and the application is respectfully requested to be allowed to proceed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Replacement Drawing Sheets